COOP'S TECHNOLOGY DIGEST

-A Timely Report On The World Of Communications-

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COOP'S TECHNOLOGY DIGEST

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Programming: What It Costs the Distributors

As New Zealand's pay TV service (Sky Network) and Australia's satellite and cable pay services (Foxtel, Optus Vision, Galaxy et al) regroup for the digital revolution, programming content cost increasingly is becoming a serious concern for commercial managers seeking to ensure their own corporate fortunes in the pay video world. Around the globe as typical pay TV delivery systems upgrade from 5-10 pay TV channels to many times that number, the cost of each programme service on a per home basis for the pay TV operator becomes increasingly important. Sky (NZ), for example, routinely collects around (NZ) $50 per month per household subscribing to its 4.5 channel package (Sport, [HBO] Movies, Orange, Discovery, CNNI). Precisely how much Sky pays for this programming, at the wholesale point of importing it into New Zealand, is a matter of some corporate security. However, delivering as it does more than 250,000 households (subscriber equivalents [**1**]) to the programmers it represents, we can safely assume that very few (if any) distributors pay less than Sky for the same programme service channel rights. And if others are less guarded about what they are paying for their services, we can by deduction come to some reasoned conclusions concerning the "profit margin" for the "value added" delivery by Sky of these same channels.

Costs appear at a minimum of two levels. First is the cable/SMATV/rebroadcaster level. A service such as ESPN delivers the channel(s) to the point of redistribution through a satellite in encrypted format. The first level customer is the one taking the service for redistribution; Sky (NZ), Galaxy, or Foxtel (cable) for example. It is the responsibility of this customer to protect the distribution of the service to ensure that only persons who are payingin fact receive it.

The second level is the consumer, or ultimate viewing location. If the programme distributor is the wholesale buyer, the consumer is the retail customer. In most circumstances, the programme originator (ESPN in our example) has very little or nothing to say about the charges created by the wholesale buyer. However, there are circumstances

1/ "Subscriber equivalents." Pay TV services have different rates for different classes of user. The basic class is a home (private-not commercial). Some classes (such as motels) receive discounts (typically from 40 to 70% discounts from the "single home" rate) based upon two factors: Volume (number of motel rooms subscribing) and, occupancy (motels are assumed for calculation to have 60% occupancy which in turn translates to a 40% reduction in first line rates). Pubs, clubs and other "public venues" where a sizeable crowd can reasonably be expected to gather to witness an event on "pay TV" command higher than home rates; as much as 1600% more than single home rates. In arriving at subscriber counts, the pay TV service calculates rates based upon the total income from all classes of customers and then divides that number by the single (private) home rate. $100,000 gross income, for example, equates to a "subscriber equivalent" of 2,000 when the single home rate is $50. In paying the programme source provider, the pay TV company would report "2,000 homes" when calculating its subscriber base in this example. The actual number of homes, motels and pubs served is not a factor in this calculation.

Murdoch Operated Indovision (Indonesia) Digital Package on Palapa C2

Service	Visi Multi	Visi Sinema	Visi Sinema Plus	Visi Super Sinema
ESPN	X	X	X	X
Star Sports	X	X	X	X
CNN	X	X	X	X
BBC World	X	X	X	X
CNBC	X	X	X	X
Channel [V] Inter.	X	X	X	X
Channel [V] Asia	X	X	X	X
Discovery	X	X	X	X
TNT/Cartoon	X	X	X	X
NBC	X	X	X	X
Star Plus	X	X	X	X
MGM Gold			X	X
Star Movies			X	X
Film Indonesia		X		X
HBO		X		X
CitraTV (3)		X	X	X
Annual Charge	US$176	US$358	US$358	US$418

where the programme creator takes a percentage of the retail level receipts in lieu of a fixed schedule of fees from the programme distributor.

Many programme creators sell their product at both the wholesale and retail levels. And it is also not unusual for a programme creator to take an ownership position in the redistribution company either in lieu of or in addition to collecting monthly fees for the supply of the programming (2). More recently, it has become fashionable for a programme distributor to take an ownership position in a programme creator's business as well.

Levels of Packaging

The table above illustrates the creative attempts to manipulate viewer interests to higher and higher monthly rates. This rate sheet is from the newly launched News Corp managed Indovision digital bouquet service now appearing on Palapa C2. The service is intended for Indonesia proper, as a competitor or replacement to the existing four channel analogue service (TNT/Cartoon, Discovery, ESPN and HBO) which started on Palapa five years ago. The analogue four channel service is currently valued near US$250 per year.

Note that general entertainment, information and sport are considered "essential" for all four classes of service. The only real variation is in the movie package. HBO Asia claims to have outlets in 15 countries serving 1,400,000 subscribers after 5 years of operation. A relatively modest number (fewer than 100,000) of these subscribe to the original analogue (4 channel) Palapa service as DTH (direct to home) customers. However, this service does reach into countries where HBO has significant cable subscription clientele. If we use the table

2/ ESPN, for example, has a 0.41% interest in Sky Network (NZ). One of the proposals under consideration at United International Holdings (UIH) was a plan whereby UIH would become a minority owner in Australia/New Zealand cable TV systems as a part consideration for "allowing" the cable systems to carrry a proposed 18 channel satellite delivered programming package (CTD 9705, p. 22).

Comparison of Wholesale Rates Charged by Programmers

Service	Class	Location	Per home, per month	Notes
ESPN	Sport	Indonesia	US$0.10	cable rate
ESPN	Sport	Taiwan	US$0.18	cable rate
Sky Sport	Sport	UK, Ireland	US$14.67	Rate is 59% of retail
Discovery	Nature, science	Asia	US$0.90	
Discovery	Nature, science	NZ	US$0.90	cable rate
CNNI	News	Taiwan	US$0.40	cable rate
CNNI	News	NZ	US$0.90	cable rate
HBO Asia	Movies	Asia	US$4.00	cable rate
Star Movies	Movies	UK, Ireland	US$14.67	Rate is 59% of retail
Star Movies	Movies	India	US$1,000 for decoder (1 year), flat fee under 600 subs	US$1,500 for more than 600 subs, flat fee
Zee Cinema	Movies	India	US$380 for decoder (1 year), flat fee	cable rate
Canal +	Recent movies	France, et al	US$3.50	cable rate
Canal +	Classic movies	France, et al	US$2.63	cable rate
Canal +	Mixed programme bouquet, per channel	France, et al	US$0.35 - $0.87	cable rate
Star TV Plus	Mixed programme bouquet - 6 channels	Taiwan	US$0.80	cable rate
Taiwan Channel 4	Sport, music, movies	Taiwan	US$2.90	cable rate
Sky One	General entertainment	UK, Ireland	US$0.65	cable rate
Sky Travel	travelogues	UK, Ireland	US$0.09	cable rate
Sky Soap	soap operas, drama	UK, Ireland	US$0.09	cable rate
Sky Two	General entertainment	UK, Ireland	US$0.09	cable rate

appearing above as a guide, the four Indovision packages would appear to have a cost versus revenue basis as shown below. However, as Indovision is operated by the content provider of many of the channels (News Corp provides Star Sports, Channel [V], Star Plus, Star Movies and Film Indonesia) it is probably unwise to assume the published rates listed in the table above are the actual rates paid to "itself" for these programming channels.

Of interest - for most US origin programming services, the rates in the table at the top of this page are +/- 10% equivalent to rates charged by the same programmers to US and Canadian cable systems. In other words, with the possible exception of the Sky (UK) sport and movie services, the rates shown are largely "world-class" without respect to the per capita income or living costs associated with individual national markets. Movie rates generally are the most expensive on a world scale. However, Sky (UK) sport and movie products are

	Visi Multi	Visi Sinema	Visa Sinema Plus	Visi Super Sinema
Wholesale cost	US$45	US$75	US$75	US$105
Retail charge	US$176	US$358	US$358	US$418

significantly more costly to the distributor than comparable products elsewhere in the world (3).

Most programmers sell product based upon a sliding scale of customer size. Sky (NZ) with 250,000 subscribers taking Discovery, for example, pays far less than the US$0.90 which smaller cable TV operators in the region pay for the same service. Services such as Discovery publish discount schedules rising to more than 50% (discount) as the number of subscription homes for a single account rises to 100,000 and above. That discounts, beyond these published rates, exist is a given.

When you strip away the glitter of Hollywood and glamour of rubbing elbows with major sporting heroes, a pay television service has very little in real tangible assets. Programming rights (aka broadcasting rights) are the only true value in a pay TV operation. Everything else is mechanical; hardware required to deliver the glitter and glamour from point 'A' to multiple points 'B'. As we show in the report that follows, Sky (NZ) programming rights are a major concern to those attempting to turn the pay TV service into a profitable venture.

Running Away from Financing of Pay TV

Two seemingly unrelated events during the past 30 days point out a growing resistance on the part of New Zealand (and Australian) bankers to agree to bankroll new pay television start-ups. In a follow-up to an announcement of this past April, the release of the Sky Network Television Limited financial report for the year ending December 31 (1995) clarifies the status of a (NZ)$250,000,000 bank loan "arranged by a consortium of banks." The offshore banks (i.e., none are New Zealand banks) have, according to the June 30th filed Sky financials, provided this sum of money to allow Sky to pay off its existing bank debt (Westpac, BNZ et al). In effect, Sky has refinanced its debt (NZ$163,028,000) held by banks and corporate shareholders with 7 year debenture borrowings from offshore banks totalling (NZ)$250,000,000. The difference between existing loans repaid and the funds borrowed (NZ$86,972,000) will be at least partially utilised by Sky to fund their expansion to a multi-programme channel all digital bouquet. Nobody says so directly (although The National Business Review for July 25 does suggest it) but this is at least a partial indication that banks and traditional sources of funding in New Zealand are growing increasingly nervous with electronic media loans.

Further indication comes from the decision by a major bank to call for foreclosure on its loan to a start-up cable TV system in NZ. The precise status of this foreclosure is not known at CTD press deadline but it appears that the bank will take over the real estate (property, building, equipment) as soon as August 1. The cable TV start-up began construction in 1996 and has been partially funded by both an equipment lease agreement and a real estate backed property loan through the bank. The system has not met its anticipated penetration projections and new construction of the system came to a halt in the last quarter of 1996. Approximately 1/3rd of the community had been constructed when the system shut down expansion; the number of homes subscribing versus the number of homes passed by the system is believed to be in the region of 5%. The bank's scheduled foreclosure would effectively shut down the operation of the system with liquidation of the tangible assets a likely next step.

3/ Cable operators attempt to live by the "1/4th-1/4th/1/2" rule. Translation: One fourth of gross receipts goes to the purchase of programming, 1/4th to monthly operational costs, 1/2 to retirement of debt and expansion. When a movie service and sport channel comes to the cable operator at US$14.67 each, it is difficult to maintain such a balance between programming costs and gross receipts even if all other channels carried are in fact free of all costs.

Bank funding of cable has been a high priority matter for more than one year. The system claims to have invested $1,500,000 of stockholder funds into the system to date, and believed it had a similar level of funding secured through the bank. However, the bank's terms required that as cable drew down on the original approved amount that the system show solid growth progress in attracting new subscribers. Each additional release of funding was to have been accompanied by proof by cable that it was achieving its projected penetration. When this did not happen and cable seemed unable to increase the penetration at a satisfactory rate, the bank apparently put a cap on additional advances.

SKY NETWORK TELEVISION LIMITED

FINANCIAL STATEMENTS

FOR THE YEAR ENDING 31 DECEMBER 1996

The system has been delivering approximately 20 channels of television in a market which has off-air service from TV1, TV2, TV3 and Sky (UHF) pay television. The subscription rate ($20 to $40 per month) is less than half of the competitive rate from Sky's package of UHF pay TV services, but unfortunately lacks the attraction of Sky's sport and movie channel services. The system claims it has attempted to secure redistribution rights for Sky programming, without success. Sky confirms only that there have been discussions between the two. A bank foreclosure of a cable television system is exceedingly rare.

The Sky Network Television Limited "Financial Statements" covering the year ending December 31, 1996 were completed late in May and filed with the government on June 30th. Copies of the material were obtained by (the) National Business Review (and others) as early as July 15. CTD reviewed in some detail the year (ending December 31) 1995 Sky financials in our October 31 (1995; p. 10) issue. This was done in conjunction with the then current report of the likely sale of Sky Network controlling interest to New Zealand News Corp subsidiary INL.

The 1996 "numbers" are in many ways more alarming than those for the end of 1995. In 1995, Sky lost $9,808,000 on a turnover of $104,660,000; equivalent of losing $0.0937 for every dollar taken in. During 1996, Sky lost $20,606,000 on a turnover of $131,848,000 which is the equivalent of losing $0.1562 for reach dollar taken in. Not surprisingly, the stockholder deficit shot ahead to a record (NZ)$148,634,000 with money owed to creditors going up by 16% in one year. All of this was against a scenario of "anticipated asset sale" which began with an invitation by Rupert Murdoch interests to sell out to INL starting in July 1996 and lasting through early in 1997. It was against the expectation of selling to Murdoch that many of the presently in place expansion and business plans were launched during the latter half of 1996.

-ABOUT SKY'S $250 MILLION FUNDING-

Sky owed a total of $92,528,000 ("current liabilities") December 31, 1996; on December 31, 1995 - $65,377,000 (an increase of 41.53% in 12 months). In the same 12 months, gross income grew by 26% and their claimed subscriber count went up by 37.5%. Borrowed money from stockholders had grown from (1995) $28,740,000 to $34,279,000; from "banks and others" $111,673,000 to $128,749,000.

On March 14, 1997 Sky converted all bank and stockholder loans with a new 7 year $250,000,000 loan arranged through a consortium of off-shore banks. Security for the new loan are "debentures" issued by Sky. After paying off stockholders (no less than the $34,279,000 as of December 31) and "banks, others" (not less than the $128,749,000 reported December 31), Sky would have remaining $86,972,000.

Their 1996 statement also reports a "deficiency of capital reserves" of $73,144,000.

Of interest, the 1996 statement reports $944,000 as "satellite costs" incurred during 1996.

-TIDBITS GLEANED FROM THE (1996) SKY ANNUAL REPORT-

On December 31, 1996 Sky Network had been in business 2072 days and had incurred a loss carry forward of (NZ)$148,671,000. This is an increase of $20,606,000 in losses during 1996. During 1996, Sky lost $56,300.55 each day it operated; the loss for the full 2072 days of opeation averages $71,752.41 per day.

Sky reports spending $83,912,000 on "decoders" through the end of 1996 which at their 275,000 claimed subscription level equals $305.13 per decoder. Strangely, Sky sells these decoders for less than (NZ)$100 as a part of their (Sky Sport) satellite distribution project.

At the time of the 1995 report, Sky was claiming 200,000 subscribers with a year end gross income of $104,660,000; the equivalent of (NZ)$523.30 per subscriber. The 1996 report claims $131,948,000 gross income and concurrently Sky claimed 275,000 subscribers; the equivalent of $479.81 per subscriber. Sky consumer rates did not materially change during 1996, indicating there may be an error in their claim of 275,000 subscribers. If the 1996 income per subscriber stayed more or less the same as 1995, perhaps a more accurate statement of "subscribers" would be 252,146 (the year's gross income divided by the amount received per subscriber in 1995).

There is special interest in the planning which Sky has been doing in anticipation of launching its own satellite to home digital programming bouquet (package of programming channels) by the middle of 1998. Sky's present terrestrial analogue services (Sport, [HBO] Movies, Orange, Discovery, CNNI) represent only a portion of the total "bouquet" planned. Sky presently (and uniquely) programmes its own sport (drawing from ESPN and other sources), movie (the HBO name is 'rented' and does not represent use of the HBO pre-packaged movie service) and Orange channels. CNNI, Discovery, Cartoon Network and the ESPN content of sport come directly from a satellite feed. Sport has been "value added" with New Zealand content largely on the basis that New Zealand Rugby (in its many forms) represents a "pay TV exclusive" which drives subscription take-up. Local news content (in lieu of CNNI programming) is a far less convincing argument for local content and Orange makes virtually no sense at all given its TV2/TV3 commercial network look and high production costs.

It is expected that for the new channels planned, there will be even less New Zealand content added. Precisely how the new bouquet channels will be offered is uncertain and will remain that way until some final outcome of who will own and control Sky occurs. If Murdoch's INL becomes the controlling owner, the Sky digital package is very likely to follow other established (and planned) Sky bouquets world-wide. This would cause the following to happen:

1) Every channel will be offered ala carte (mix and match to create a channel selection for each viewing home) with each channel individually priced, and,

2) Some basic "discounted packages" to help people with generalised viewing interests select "tiers" to which individual channels can be added for premium pricing if desired.

-SKY'S FINANCIAL COMMITMENT FOR FUTURE PROGRAMMING-

There is no rational reason for Sky to disclose in their 1996 statement their financial commitments in place as of December 31, 1996 for the acquisition of "new, additional programming" other than their recognition that competitors and would-be competitors would be studying their financials for some indication of future plans. By adding the footnote that follows, they could be reasonably certain competitors would "take note."

"*In the normal course of business the company has also entered into agreements for the purchase of programme rights for various periods up to 2003 amounting to approximately $219 million (1995: $41 million).*" Placing that number into perspective, at 275,000 subscribers Sky is committed to purchase (through 2003) $796 (per subscriber) in programming; at 300,000 subs - $730; at 325,000 subs - $674; at 350,000 subs - $626; at 375,000 subs - $584.

HOW BIG ARE THEY? The Size of Selected Pay TV Operators world-wide

Country	Operator	# Subs	% of market	Country	Operator	# Subs	% of market
Australia	Australis	200,000	2.9%	New Zea.	Sky	250,000	22.7%
	Foxtel	200,000	2.9%				
	Optus V.	160,000	2.3%				
				S. Africa	MultiChoice	90,000	<1%
France	Canal Sat	190,000	1.3%	UK	BSkyB	6,200,000	39.9%
Germany	Kirche	40,000	<1%	USA	DirecTV	2,650,000	2.7%
Italy	Telepiu	70,000	<1%	USA	Echostar	555,000	<1%
				USA	PrimeStar	1,600,000	1.7%
Malaysia	Astro	60,000	<1%	(U)SA	Cable TV	62,000,000	(64%)
Middle East	Orbit	110,000	<1%				

The concept is that "viewers do not pay for television they do not watch," an attempt in the marketing department to cause subscribers to believe they are not forced to subscribe to channels which they have no interest in viewing. The present Sky analogue service adopted a similar approach when Orange and Discovery were added. This approach makes it possible for new programming to be "trialled" without upsetting established "packages" which subscribers have previously selected. And specialised services (such as The Golf Channel) can be separated and offered as single channel options for a price which serious enthusiasts (of a particular subject, such as golf) would not find objectionable although people with no interest in golf would consider onerous.

Australian cable and DTH operator Galaxy appears to have paid significantly more for their programming than other world segments. Australian television, from the early 1960s, has always "bid up" programming costs by being overly concerned with what their competition is doing rather than with how they can create counter programming. Programmers generally average two times as much revenue per service or programme through Australian sales as their world-wide sales. The cost of programming, now being paid in Australia, has had (and will continue to have) a significant impact on the long term losses of Australian pay television. The demise of Galaxy as a stand alone service (see p. 15, here) is to a large extent traceable to programming rights deals made by the firm. Australian pay services are paying as much as 175% of their monthly subscriber gross receipts for programming; far more than the 25% of gross receipts most operators strive to maintain. One way out of this for the Australian pay operators is to convert from flat fee packages to per channel options; i.e., where their programming contracts do not specify onerous minimums per month, reduce their programming overhead by paying only for those subscribers who in turn select specific channels and pay for them.

What we can expect to see in the next few months is a restructuring of the way pay TV services are offered, and paid for by consumers. As the digital bouquets of 20+ channels materialise, more and more emphasis will be placed on individual channel selection (even to include individual programme selection when the hardware is in place to allow this to happen) rather than on packages that attempt to include something for every viewer for a flat fee. The era of flat fees is coming to a close as the technology to allow individual selections down to the individual programme level come on line.

Here are the elements in our puzzle:

UNTANGLING THE SOUTH PACIFIC PAY TELEVISION PUZZLE

1) Sky Networks (NZ) pioneered pay TV in the South Pacific, and by the end of 1996 claimed 275,000 subscribers. After 6 complete years of operation, Sky lost (NZ) $20,606,000 on a turnover of $131,848,000; the equivalent of $0.1562 for each dollar taken in. Sky presently reaches 22.7% of all homes within range of its pay TV terrestrial transmitters.

a) Two major firms - First Media (Telecom) and Saturn Communications (UIH) - claim to be investing upwards of (NZ) $ 100,000,000 to place broadband cable TV services in front of approximately 100,000 homes in Wellington and Auckland. Neither firm yet claims 5,000 subscribers, it appears neither is attracting more than 5% of the homes presently passed to cable TV service.

2) Galaxy (Australis Media) pioneered pay TV in Australia through a combination of MMDS (point to multi-point microwave) and Ku-band DTH (direct to home) satellite. After three years of operation, Galaxy claims 200,000 subscribers but has run up a loss in excess of A$800,000,000. As of June, Galaxy was losing A$1,500,000 each week and depending upon the source was forecasting continued losses through the end of 1997 or beyond.

By comparison, Galaxy's present weekly loss of A$1,500,000 is not significantly different from Sky Network's 1996 reported loss of NZ$396,269 per week when adjusted to the difference in local currency values and for the difference in population bases (Australia has 5.5 times the population of New Zealand) .

3) Foxtel (Cable TV), owned 50% by Australia's national telephone carrier Telstra and 50% by London based News Corp, has invested a reported A$1.9 billion to pass 2,100,00 homes. It claims 200,000 subscribers but admits it is losing in excess of A$300,000,000 per year at the present time. Foxtel was originally committed to passing 4,000,000 homes at an estimated cost of A$4 billion; it would like to stop construction of new cable plant (indeed, for all practical purposes it has stopped) and find some way to "rationalise" (consolidate) its present network with competitors Galaxy and Optus Vision.

4) Optus Vision, originally owned by an international consortium but now solely owned by Optus (Communications), has invested a reported A$1.5 billion to pass 1,700,000 homes. It claims 160,000 subscribers and admits to losing A$300,000,000 per year presently. Like Foxtel, it would prefer to not only stop additional cabling but to convert from cable to satellite service to reach the balance of "unserved" Australia.

In 1997, the four major players are in the process of losing in excess of A/NZ$700,000,000 with total investments that exceed A/NZ$6,960,000,000.

Why the Losses?

One possible answer is, simply put - pay TV is not a viable business. If that was true, how then would Rupert Murdoch's News Corp be managing profits in excess of A/NZ$1,500,000 per day with their BSkyB service? No, there are too many examples of cash-earning pay TV operations to dismiss the losses with a sweeping condemnation.

Perhaps the systems in the Pacific are too small, or simply have not had time to overcome the understandable start-up losses? The oldest system is operated by Sky (NZ) and it has achieved what in the pay TV world is considered a very acceptable penetration level (nearly 23% of all homes "passed"). Yet in remains unprofitable. As for size, Sky NZ's quarter-million plus subscribers puts it into the upper ranks of similar systems with just a fraction of the normal costs.

Programming rights? This may be the key. Sky's costs for ESPN, CNNI, Discovery and Cartoon (Network) should be amongst the lowest per subscriber in the world. Contrary, the

movie costs and non-ESPN sporting costs are possibly amongst the highest. It is said that even stockholders serving on the board of Sky do not know how expensive Rugby and other sporting rights have been for the firm. If that troubles you, remember that on the Sky board sits a representative of Television New Zealand; the original rights owner to much of the New Zealand rugby rights and a loser in the competitive battle with Sky for those rights. If, in fact, Sky has paid "too much" for rugby and other sporting rights as the engine that drives new subscription sales, there is only one practical way out. Sky must somehow onsell these rights to a third party to recoup some of the present costs. It is certainly possible to "bid" so much for a series of events that no practical number of subscribers in your "local" (New Zealand) market could ever bail you out (**1**).

What is known about the programming costs for Foxtel and Galaxy certainly points up this fact. Foxtel, in an agreement negotiated by News Corp, is committed to pay Galaxy A$4.5 billion over 25 years for access to a relative handful of programming channels. To put that number into perspective, if Foxtel managed to grow to serve 1,000,000 cable subscribers, it would be paying A$4,500 per subscribing home for these channels; or, A$180 per year - A$15 per month. Based upon common rules of thumb, Foxtel should be collecting no less than 4 times $15 or $60 per month just for those 8 channels. In fact, it is today collecting A$39.95 for 32 channels - each of which costs it money to put on their cable plant. And in case it has escaped you, at today's 200,000 subscriber level, Foxtel would be paying 5 times A$15 per month or $75 per month for just those 8 channels of service. And collecting A$39.95 in the process. It is no mystery how Foxtel could be running up a loss of A$1,000,000 each day at their present 200,000 subscriber level. The wonder is that the loss is only a million a day.

At the root of the Foxtel problem are movie right programming costs. There is unanimous belief that Galaxy, later Optus (and Foxtel) paid far too much for Australian pay TV movie rights. There is a rich and unfortunate history going back to the 1960s of Australian TV firms engaging in serious bidding wars for movie and other programming product; trade journals of 30 years ago (Variety, Broadcasting et al) routinely reported their wonderment that Australian TV networks were paying from 3 to 10 times the normal "asking price" for features. The always intense intramural competition in Australia routinely results in "auctions" when new Hollywood product becomes available. And the end result is that as pay TV came along to be a new bidder in this form of industry genocide, the prices rose even higher (for one well balanced review of this topic, see "Wires crossed in pay TV saga", p. 11 here).

To complicate financial matters in Australia, each of the three major participants has allowed itself to not only overspend on programming, but to also make one or more serious mistakes in their system construction planning. In the case of Galaxy, their terrestrial microwave (MMDS/MDS) delivery system was incapable of reaching more than a fraction of the homes initially believed within reach. To fill in geographic regions that could not be reached with the original microwave transmitters, Galaxy first attempted to add "booster" units (low power rebroadcast stations; "beam benders"). Tens of millions of dollars later, Galaxy decided they should really be using satellite and then jumped into a satellite distribution agreement with Optus. At that point the cost of providing reception equipment for each subscriber leapt from around A$400 (MMDS) to more than A$1,100 (satellite). And driven by a marketing department only interested in building subscriber numbers, Galaxy awoke one day and found itself installing A$1,100 in satellite reception equipment for A$19.95. The A$1080.05 difference? Carried on the books as a capital expense to be "paid

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1/ National Business Review (July 25) reports Sky may be paying NZ$25,000,000 per year for rugby rights in New Zealand in a contract stretching through 2003.

Wires crossed in pay TV saga

ALAN KOHLER

INCOMPETENCE and greed have so characterised the introduction of new broadcasting and communications services into Australia over the past 25 years that it's hard to believe we now stand on the threshold of one of the best regulatory systems in the world.

Incompetence is the kindest spin one could put on what has led up to it, and there's no doubt there has been plenty of that. But there is more to it: the lobbying has been among the most successful in history.

The consistent beneficiaries of the chaotic, often baffling, sometimes loony, Government and corporate decision-making in broadcasting and communications have been the three commercial free-to-air networks. And the most consistent owner of a TV network throughout the process has been Kerry Packer.

The fact that satellite and cable television in Australia was delayed first by several inquiries, then by a deliberate five-year moratorium, and then by mistakes from almost everyone who touched the business, has entrenched the Packer family as Australia's richest.

While the big three American networks were losing a third of their audience and half of their profits to cable television during the 1980s, the three Australian networks basically won a 15-year reprieve from it. That reprieve is still going: some of the policy decisions made by governments, in particular the anti-siphoning laws, plus mistakes made by the pay TV operators, have permanently crippled them.

What that has been worth to Kerry Packer and his family in dollar terms can only be guessed at, and the extent to which he actually influenced the policies and engineered the outcomes will probably never be known.

But one of the greatest ironies, perhaps, is that the only time the Labor Government actually said "no" to Kerry Packer it made one of its biggest mistakes. That was when Paul Keating made that legendary outburst on the Nine Network's *Sunday* program in October 1994, declaring that the Packer and Optus proposal to have regional cable franchises instead of a cabling free-for-all, was "a bigger scam than Murray Farquhar's attempt to steal gold from The Philippines' vaults".

What led to that classic Keatingism may never be known, but it was certainly a mistake: Continental Cablevision, cut out of satellite in Australia by the fact that the licences had gone to small players with more money than sense, and Optus — in need of a customer access infrastructure — had to build a national cable network. Telstra decided it could not afford to leave the cable business to Optus, so it built one too. Seven billion dollars later they have both woken up with a hangover.

But perhaps the bigger mistake was that everyone in Australia spent so long thinking that satellite would be the best delivery method for subscription TV here. Despite the cable rush that happened in the US in the seventies and eighties, the debate in Australia always centred on satellites.

That was partly caused by Kerry Packer too. In the late 1970s Packer wanted to get around the two TV station restriction by putting up his own satellite. The Fraser Government, with Tony Staley as Communications Minister, panicked and commissioned a report — while putting a halt to Packer's plans. As a result of that report, Aussat was formed by the Government and taxpayer funded satellites were put into orbit at great expense.

But they were always hopelessly under-utilised, which in turn meant that the Government was always trying to make sure subscription television used them instead of cable.

The arguments were also about equalisation of services with the bush and the need for satellites to overcome Australia's tyranny of distance, but the real reason was the need to use up Aussat capacity.

Paul Keating even mandated satellite delivery in 1992, when Steve Cosser cleverly bought up microwave licences to sell pay TV and threatened to undermine the value of Aussat.

> ❛World's most open system, but some of the least rational infrastructure.❜

In the event, satellite and microwave transmission of TV has been disastrous for those who bought Cosser out of Australis (the Cosser vehicle that eventually won the satellite licences) and cable is now taking over from it.

Part of the reason for that was another piece of gratuitous Government interference, when digital transmission was mandated for the satellite licences even though it wasn't ready. That cost Australis 12 months.

There's no evidence that Packer was responsible for that, but he was involved in the other reason for the failure of satellite TV: Australis's and Optus's decision to bid absurd prices for exclusive movie content. When those negotiations were taking place in 1994, Bob Mansfield's Optus was relying on Packer and his executives to make the running for Optus in Hollywood.

So Optus, represented by its 5 per cent shareholder, Publishing and Broadcasting, bid up the movie prices and ruined the cost base of the industry.

In sport it was a similar story. Anti-siphoning legislation which, thanks to lobbying from Packer, ensured all major sport remained controlled by free-to-air networks, meant that the best sporting rights were either unavailable or very expensive.

But at least Packer saw the potential dangers of pay TV, unlike CBS and NBC in the US, who underestimated cable and paid the price. Not only did Packer never make that mistake, Australian governments have a habit of paying a lot of attention to powerful vested interests, so he was able to kick some goals.

It leaves Australia after next Tuesday with the world's most open system for telecommunications competition, but some of the least rational infrastructure: two cables past about a third of Australian homes and nothing but copper wire past the rest. There will now be a US-style cable rush for regional areas, and some sharing between Optus and Telstra in the city, but unfortunately for them the duplication is so great — 80 per cent or so — that there is not much potential to share what they have built already.

The joke is that cable has always been the best technology for delivering video broadcasts plus voice and data telephony, but it took so long to get going in Australia that it now won't be long before satellite can do all that more cheaply.

So while it now seems to have been a mistake to waste time and money on satellite during the eighties and early nineties, maybe in the long-term history will show that cable was the real mistake.

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off" out of the monthly gross receipts from the $39.95 programming fee. How long might that take? If 50% of the monthly fee (or, $19.98) was actually available for debt repayment, approximately 54 months. When Galaxy financial wizards figured this out for themselves, they all but quit selling additional subscriptions. Because, in fact, it looked more like 100 months than 54 months before even the subsidised cost of the satellite systems would be recovered. And to make a profit? Probably - never.

While Galaxy was stumbling over installation costs, Foxtel and Optus were battling street by street for dominance of the cable field. It is now estimated that 80% of the Foxtel plant duplicates wiring of Optus - both systems have wired the same suburbs and streets. With Foxtel already burdened by extraordinary programming rights costs, the Telstra decision to not allow competitor Optus Vision unchallenged access to any streets turned into a poison pill. In the rush to beat each other to the consumer doorsteps, construction costs escalated way beyond budgets. By June of this year both sides were anxious to find some way to "rationalise" the trench warfare.

Which takes us to what point?

The Australian press calls it "rationalisation." What it means is consolidation - somehow, rather than three pay TV players there will be first two and eventually (the sooner the better) only one. From competition run amuck to monopoly in one giant leap. The elements are already in place. The Murdoch "family" and the Packer "family" have agreed to the division of Galaxy. Either Galaxy falls over and becomes a part of Foxtel, or, it falls over and Murdoch + Packer pick up the pieces. At that point Galaxy becomes a satellite only delivery arm of Foxtel - willingly or unwillingly. Which leaves Optus and Foxtel. The two have been talking. Frequently. About how they can "share the coax" and eliminate the expensive duplication of two cables down each street. Optus needs to stop bleeding the A$300,000,000 in losses cable is causing. Quickly. Knowledgeable punters are giving odds that Optus Vision eventually - sooner eventual than later eventual - falls under the wing of Foxtel. But not the Foxtel we now see. Rather, a reborn Foxtel owned by News Corp and the (Kerry) Packer interests. And at that point we have:

1) Telstra back in the telephone and communication business, safely out of TV;

2) Optus restructuring its finances for a public float sometime between 2000; safely, also, out of the hazardous TV business;

3) Galaxy a footnote in the history books.

And the second level Austars and other pay-TV operators in Australia? Customers of Foxtel for programming, eventually if they keep their heads about them to be acquired by News Corp and Packer at some future point in time.

Which brings us full circle back to the INL + Sky NZ deal.

When the first INL attempt to purchase Sky NZ came apart in February, we wrote in CTD 9702 (p. 11):

"*More likely the end of negotiations with SKY by INL were tied not to the US purchase of Echostar nor even the problems in structuring SKY after acquisition - but rather they are connected with* ***recent changes in the Australian*** *pay TV (and DBS) world.*"

The cleanest path for SKY to follow out of the losing money column is to become an operating part of a larger concern; a concern that can take the unique Sky New Zealand sports product and sell it "overseas," while simultaneously cutting Sky NZ operating costs through consolidation with the Australian pay TV providers. A Murdoch and Packer operated pay TV entity combining Australia with New Zealand (and expanding over time to include the balance of the Pacific) is such an entity.

Sky NZ's salvation is to become an integral part of Murdoch/Packer Australia. Our sport product becomes an export item for Australia, while the Murdoch and Packer programming becomes an import item to New Zealand. Once the basic pieces are in place in Australia, then the purchase of Sky NZ came proceed. And you should not be shocked to see INL holding less than 80% this time around with the Packer interests taking a spot in Sky NZ as well - if not immediately, soon.

As Telstra and Optus have painfully learned, pay TV is a high risk, money losing business even with the best of planning and strategy. Turning the corner to profitability takes more than time, as Sky NZ has shown us. Deep pockets and a willingness to ride out the period when you are going to lose money takes nerve and guts. Neither Telstra nor Optus can afford the Australian politics that comes with the amount of money they are losing today and in the best of scenarios will continue to lose for a good many years into the future. And unfortunately for all players, the technology employed to deliver pay TV is reinventing itself every 18 months. There comes a time to cut your losses and kick the ball. Waiting at the opposite end of the field to grab the pieces are the Murdochs and Packers. Welcome to the real world.

TECHNOLOGY BYTES

...BITS and BYTES you may have missed in the rush to make a dollar ...

July 30, 1997 ♦ VOLUME 97-06-39

Satellite TV & Radio

Exxxtasy (triple X rated) adult film service reported first here (CTD 9705, p. 13) and more extensively in SatFACTS for July 15th (p. 6) is not expected to resume broadcasting until "sometime in September." The service was originally being carried in spare digital bouquet "space" within the recently launched SPACE TV Systems service from Intelsat 702. Unfortunately, the hard core adult films were sandwiched within the SPACE TV bouquet between an all news channel and a children's channel and could not be avoided when channel surfing (!). Exxxtasy has a contract to supply the American original adult channel to "US bases in Japan and Korea" and had hoped to create additional markets for the service in the Pacific and Asia. SPACE TV Systems was to have initiated conditional access protection of their service no later than July 15th and under those operating conditions nobody unauthorised for the adult channel would have found it while channel surfing. When the conditional access equipment did not arrive as scheduled, SPACE TV Systems elected to remove Exxxtasy from the bouquet. How serious might Exxxtasy be about marketing in the Pacific? Co-owner Stuart Duncan, International VP of Sales Fred Pantalone are scheduled to visit with potential marketing agents for the service in Australia and New Zealand the week of August 4th, a not casual trip for the Ottawa (Ontario) based firm.

SPACE TV Systems (Chinese) bouquet on Intelsat 702 (Ku) continues to be rearranged in channelling and content every few days as this issue of CTD goes to press. The firm is scheduled to kick-off a North American version of the service August 1 and hopes to have 8 Mandarin/Cantonese language channels in operation by that date. Quite independently of Exxxtasy (see above), SPACE Systems now claims their conditional access will go into operation August 1. Within the present SPACE Systems bouquet, one channel (208) is announcing in Mandarin the parameters of subscribing to and using the bouquet. One of the announcements warns viewers that existing (FTA) reception using (by name) "Nokia, Hyundai or Pace" receivers will not continue once the service becomes conditional access. The announcement also advises, "*Do not be mislead by dealers offering you free reception of this bouquet using these (listed) receivers*." It seems, according to a SPACE Systems representative in Sydney that "*some* (DTH) *dealers are already attempting to sell systems to the public with promises of no fees*." This is, of course, not the way the bouquet will be offered once the conditional access does begin. The receiver part number which SPACE will be supplying is the Thomson XSAT CD.TV200.

Intelsat 802, launched successfully late in June and intended to take up residency at 174E within next two weeks, is reported to be "testing" at 167E; C-band CW beacon level signal near 960 (IF) and carrier being tested at various power levels near 1060 (IF), on left hand circular. The satellite should be undergoing at least C-band checkout as you read these words; when testing is completed, Intelsat will shift the new satellite to 174E and transfer existing traffic on I701 at that location. According to Intelsat, they plan to have 701 moved to 180E and in operation as a replacement for significantly inclined in orbit 511 by early in September. With 802 at 174E, we do not anticipate any significant new video in the near term at that location but do expect major changes in existing operations from 180E as I701 takes over.

PAS-2 Ku band activity continues to develop; latest addition - Spectrum Communications B-MAC analogue signal on 12.415 Vt. Just missing our last deadline, Australian services Imparja (northern territory regional telecaster) and ABC (national) are now also being transmitted on PAS-2 Ku 12.321 Vt in PowerVu format. These two medium definition (2 Mbit/s) video services plus a third audio-only channel are being uplinked from Telstra's Bendigo (Victoria) centre. Telstra has taken several PAS-2 Ku band transponders and is planning a direct to home PC (personal computer) service using a portion of this bandwidth before the end of the year with "partner" Hughes DirecPC. PowerVu format Imparja and ABC are presently in conditional access, believed to be intended primarily to off-(north) shore oil rigs which are outside the reach of Optus Ku band service signals that also provide the same two services within Australia proper. Telstra is taking advantage of July 1st deregulation of Australian satellite and telecommunications market with their PanAmSat leases and is expected to transfer significant parts of its present Optus business to PanAmSat during next 18 months.

Testing of transponder, believed to be Palapa C1 at 150.5E, continues on newly reported frequency of 1330 Hz. Measat 2 (148E) had previously been observed testing at 1065 Hz (IF). Both satellites claim coverage

abilities to Australia and New Zealand but no commercial users have stepped up to actually utilise this potential to date. Signal is strong in New Zealand, equivalent to NHK on PAS-2.

Wind storm damage blew panels out of two (4.8, 3.7m) satellite dishes installed by Mercury Television (Dunedin [NZ]) which were in use for satellite feeds from Deutsche Welle, MCM television and others.

Sun-Moon-Star, creator of the Skandia SK888 and other private label DVB Compliant receivers, shut down their little publicised Sydney office July 24th. Firm, which calls Taiwan home, had opened Australian office in hopes of winning some portion of the Galaxy pay-TV IRD business away from present supplier Pace and/or hoping to sell Optus Vision DTH service receivers. They submitted many purpose created software and hardware design IRDs to both Galaxy and Optus Vision during their six month stay in Australia, believed they were making progress with both firms but in end, "*Whenever we met their latest operational demands, they moved the goal posts away from us and delivered a new set of criteria.*" Bottom line: Any firm that Rupert Murdoch controls is not going to be out seriously shopping for additional receiver sources as long as Pace is able to meet the demand. Sun-Moon-Star may have given it their best shot - in the end, they were out of the running before they opened their Australian office.

Scientific-Atlanta D9223 software upgrade that allows users to access "DVB Compliant" (MPEG 2) services not transmitting with the PowerVu variation is getting "thumbs up" approval from early users (SatFACTS July 15, p. 29). Software developer Robin Colquhoun, frequently vocal against previous SA policies restricting use of the D9223 receiver, has a mostly glowing report appearing in SatFACTS for August 15th. Unfortunately SA has adopted an unfriendly pricing policy: a US$500 premium for their "DVB Compliant" software version (at US$1,795) while the standard PAS-2 PowerVu (only) version is (US) $1,295.

Geostationary orbit (above equator, non-moving) satellites may not be wave of the future after all. With C and Ku band geostationary orbit positions now all but gone (through actual use or reservations for future use), and Ka-band satellite locations disappearing fast, aggressive satellite creators are proposing inclined orbit satellite systems which will operate outside of the GEO world. Beauty of inclined orbit is that rather than having single "belt" for satellites around globe, by employing inclined orbit the belt turns into an infinite number of space expressways and several thousand more satellites can operate in the inclined orbit mode without creating untenable interference between one another. Downside is that inclined orbit satellites for some applications will require that ground stations using them must track or follow the satellites trajectory (wanderings) through the sky, increasing ground station costs. Motorola has filed application for Celestri system of 63 satellites priced at US$12.9 billion. System would encircle earth with seven separate inclined orbits with 8 satellites per orbit plane plus one spare for each orbit belt. Frequency band would be Ka.

DSS operator Echostar and consumer electronics manufacturer JVC have completed details that will produce first combination DSS (direct satellite service) receiver equipped with digital format VHS recorder. Model HM-DSR100DU "Digital Satellite Recorder" carries US$995 price tag which includes LNB, 18" dish antenna, connecting cables and do-it-yourself installation programme. For second-set homes, model HM-DSR100RU at US$949 allows separate programme selection and recording in single unit. Competitive approach from Thomson and Hitachi are standalone satellite compatible D-VHS recorders only - DSS viewers will be required to separately purchase satellite receivers. D-VHS is a not yet established technology that combines the physical size of VHS tape with digital rather than analogue recording (at 14.1 Mbps).

Echostar lowered entry level monthly satellite package pricing from US$24.95 to US$19.95. Package of 40 TV channels when combined with US$199 purchase of complete home 'DISH' system is lowest currently in North American DBS/DTH marketplace.

44% of all satellite TV subscriptions are coming from addresses which have cable TV available, according to recently released USA study. Study also found that 13% of those owning satellite dish and subscribing to satellite programming also subscribe to cable as well. Seven percent of US homes now have satellite (DTH) TV.

Local TV signals via Ka-band satellite. New US entrant Microspace is planning to shoot TV signals from each USA "market" to new Ka-band satellites for delivery back into normal market coverage area. Why? With move from analogue to digital TV, Microspace believes there will be period of intense consumer confusion and adjustment required for normal "local" TV reception. It believes it can offer consumers Ka-band feed of local

-Galaxy Death Notices May Not Be Premature-

Galaxy, haemorrhaging A$1.5m per week, sought the temporary safety of a harbour posted by cable competitor Optus Vision. Alas, the NSW Supreme Court ruled Australis (Galaxy) could not land there which left the satellite and MMDS operator adrift at sea with no lifeboats. Galaxy sought approval for a joint venture that would combine Galaxy satellite delivery with Optus Cable services plus a sharing (and attendant staff reduction) of duties. Galaxy believed it could reduce costs by 10 to 15% with the alliance, and increase revenue by sharing programming expenses with Optus. Foxtel (News Corp and Telstra) opposed the alliance on the grounds of a prior programming agreement between Australis and Foxtel. The court agreed with their opposition.

Shortly after the court decision, spokespersons for the (Rupert) Murdoch family and the (Kerry) Packer family announced a new agreement which seems to divide the carcass of Australis/Galaxy while the body is still alive. "*PBL (Packer) has agreed to work with News and Telstra towards the rationalisation of the pay television industry for the benefit of Foxtel,*" read the release. Murdoch holds agreements issued by Australis that allows Foxtel to reuse (for a considerable fee) programming originally acquired for Galaxy use. Packer holds "mortgage rights" to the original Australia programming deals in the event that Galaxy/Australis fails to stay afloat. The latest agreement basically says -

'If Australis goes under, Packer agrees to transfer its mortgage rights on Australis programming agreements to Foxtel - for a consideration not explained.

'If Australis comes to Packer for assistance in staying afloat (i.e., additional funding), they will be denied additional Packer support in the belief that a quick death for Australis is in the best economic interests of the Murdochs and Packers.'

Had the original Australis/Galaxy + Optus Vision deal gone through, programming line-ups for both Optus Vision cable and Galaxy were likely to have merged into a similar if not identical channel grouping. Optus Vision would have then assumed primary operational control of the Galaxy satellite service with speculation that Galaxy would become nothing more than a "brand name" for Optus service delivered via satellite. Further, Optus would have then offered "nation-wide service" through a common marketing programme and individual homes would have been shunted towards cable (where available), MMDS (where available if cable was not available), or, satellite if neither cable nor MMDS was available.

With the likelihood that Foxtel will end up with the primary programming rights of Galaxy, the net result of all of this is an almost identical outcome will eventuate with Foxtel replacing Optus Vision as the cable supplier. Optus Vision could create its own satellite delivered service if it wishes and has in fact been testing just such a service on Optus B3 (12.550 Hz) since May. The pawn in this tussle are both the primary programming rights held by Australis/Galaxy, and, the 200,000 Galaxy service subscriber base already in place.

(for a presstime update, see next page)

TV signals for a price most will find comfortable while at same time eliminating problems inherent with new digital TV terrestrial broadcasts. Company plans 150 uplink sites with 6 or more programming channels per site.

US fourth in - first out DBS broadcaster Alphastar, in US bankruptcy court, may be rescued by Samsung and Hyundai. Alphastar ran into financial problems when parent Tee-Com Electronics was thrown into receivership during May. There are reported to be 55,000 Alphastar subscribers in North America, many in USA and Puerto Rico although service had originally been intended as a Canadian only service.

PanAmSat has received US FCC approval to locate planned PAS-9 in Atlantic Ocean Region (AOR). PAS-1, PAS-2R were original PanAmSat birds for Atlantic; recently FCC agreed to allow PAS-8 to be located in AOR as well. Status of next PanAmSat bird for Pacific region is now less clear.

Digital TV & Radio

On Channel repeaters (OCR) is newest technology being tested in USA for fill in of terrain shielded shadow areas. Digital TV transmissions, uniquely to analogue, can be repeated by low power rebroadcast stations on same channel (frequency) as original transmissions without interference between the two. TV sets even located where both the original and the booster signal can be received will differentiate between the two and select highest quality service automatically in most cases. Bonus here is that rather than requiring new TV channels for low power translators, technology allows one channel/frequency to be used and reused multiple times all in same market area. Testing in final phase is being conducted at Harpers Ferry, WVA using signal of Washington, DC pioneer HDTV transmitter as original source.

-FIRST / Rationalise ... SECOND / Privatise-

Australia's two major telephone + cable TV providers (Telstra and Optus) have independent plans to at least partially privatise their operations near term. Telstra plans to offer A$10B in shares to the public market currently scheduled for November; Optus is less certain when it will offer shares to the public and at what value.

In both situations, massive cable TV losses do nothing to enhance their balance sheets and each would like to either shed or at least rearrange these losses before offering shares to the public. Telstra faces ongoing annual losses in the A$300,000,000 region with cable TV and if it elected to discontinue rolling out cable, Telstra would have to pay Foxtel partner News Corp several hundred million dollars as a penalty for not completing the cable construction. Optus advisers are suggesting a massive write-down of several billion dollars on the money losing cable TV investment Optus Vision. Telstra advisers, facing a closer deadline with their November public shares schedule, is seriously considering a write-down of their own of A$1 billion.

Thus the stage is set for someone outside of Telstra and Optus to come along and assume control of both money-losing cable TV ventures provided the new owner(s) is willing to assume some of the debt that is present. It is against this scenario that News Corp (Murdoch) and PBL (Packer) are talking of working some sort of partnership to assume not only the assets of Australis/Galaxy but those of Foxtel and Optus Vision as well. The timing here is critical - Telstra needs all of this settled before it goes partially public in November and competitor Optus is stuck in limbo with its own privatisation plans until it can reconcile how to handle the existing cable TV investment (and on going [1997] losses amounting to A$380,000,000). Where is all of this leading? See below.

-NEWS Corp and Telstra Agree to Australis Merger Plan-

With the preceding summary as a background, only the timing and some of the detail of the "merger terms" was in question. Telstra, to bail itself out of the cable television fiasco it now faces, has agreed to support a merger of Foxtel and satellite/MMDS pay TV provider Australis Media. Here are the proposed terms, announced as CTD was going to press:

1) Telstra and News Corp as Foxtel partners taking a 66.5% interest in Australis. There was no companion announcement but sources close to the deal believe Kerry Packer's Publishing and Broadcasting Limited (PBL) will take 25% of Australis as well.

2) Not a surprise, the new group will be called Foxtel and with the combined resources of Foxtel cable and Australis will deliver pay TV to all of Australia through cable, MMDS and satellite options. At least one Australis franchisee, East Coast TV, is included in the merger plan with Telstra and News taking a combined holding of 60.5% in East Coast.

3) Packer's PBL is gaining their interest in return for backing the Foxtel entity and in return for giving up its "first and last right of refusal" which it holds on Australis programming contracts as a form of "mortgage" from previous cash advances by PBL to Australis.

4) To bring Telstra around to this position, there are several forms of compensation involved for the telephone company. First up, the terms of the merger report that News Corp will forego claiming against Telstra for uncompleted cable television rollout. Telstra is halting the cable rollout after passing a claimed 2.5 million Australian homes, well short of the 4 million promised. Neither Telstra nor News Corp officials ever revealed the precise "compensation" called for by their original partnership agreement but Australian analysts believed it could cost Telstra as much as A$300 million if cable construction halted at the 2.5 million home level. The announcement concerning the new plan reports, "*Telstra will forgo $300 million worth of revenue from Foxtel over the next five years*," one of the conditions attached. The reports also state Telstra will provide an equity loan of A$79 million.

5) News Corp and Telstra singly will also provide guarantees of A$100 million to Australis to create a new debt facility. On the off chance that the newly merged Foxtel + Australis decides to go for its own public offering within the first year, News and Telstra are also agreeing to a $25 million underwriting of such an issue.

Reaction? Competitor Optus says it will fight the plan, and before the announced merger can proceed, it must have the approval of the (Australian) ACCC. Telstra said the merger will save it A$1.5 billion over the next four years.

-HOW FOX Sport Intends to Engage Competitor ESPN-

Rupert Murdoch's News Corp and US based cable television operator TCI (a partial owner of Sky Network NZ) are paying US$850,000,000 to acquire a 40% interest in what is arguably the most lucrative television sport package in the world. The size of the deal is overshadowed by what it portends for the rapid development of a world-wide sporting network to compete directly with Disney owned ESPN.

News + TCI are purchasing shares in something called Cablevision Systems (CSC), owner of the famed New York Madison Square Garden plus the new York Knicks and Rangers sporting clubs, and a chain of 7 North American regional cable TV sporting channels. The plan is to merge this package of channels with existing Fox TV network (USA) professional sporting coverage (American football, baseball, hockey) and News Corp sporting rights outside the USA (New Zealand rugby is a local example).

Fox Sports, multiple channels of sport ranging from English Premier League Soccer to New Zealand and Pacific rugby will circle the globe in an endless array of sport-addict channels sold through direct to home, cable and terrestrial broadcasting deals. Inside the USA, the deal covers television rights for 20 Major League Baseball teams, 17 National Basketball Association franchises, 12 National Hockey League teams and a host of college conferences. There is so much sport involved that within the USA this package now fills 7 regional sporting channels 24 hours per day. Married to the News Corp / Fox sporting coups acquired outside of the USA, one US observer noted, "*There is enough sporting content here for Murdoch to create an entire satellite that is filled with nothing but sport, 24 hours per day.*" North American DTH and cable subscribers are already able to purchase "home tickets" to full season coverage for virtually any professional football, baseball, basketball or hockey team. The rapid deployment of multiple channel digital programming bouquets on a world-wide basis is now expected to provide similar home viewing options to virtually any location on the globe within reach of a Murdoch controlled DTH (or cable) satellite delivered package.

The challenge facing Disney owned ESPN is to provide a competitive service with an infrastructure that includes one global network (ESPN) and an essentially North American only second service channel (ESPN2).

Transition to digital television production techniques was central theme at Montreux International TV Symposium (June). Speakers generally endorsed cost effectiveness of conversion to digital citing ability to produce programming quicker for more variations than with analogue at lower costs. British firm HTV, which produces news programming, said it spent US$16m for pair of all-digital studios and invested heavily in retraining for staff. End result - it expects to save US$4m per year in production costs over previous analogue expenses. Video equipment designers continue to debate "appropriate" data rates for studio and field production cameras, citing need to find best balance between viewer acceptable quality at home viewing point and cost of creating original images at camera end of circuit. Sony recently announced it was reducing data rate from 35 to 28 Mbps as compromise between quality and cost.

Zenith, major US brand of home TV, has announced "*analogue for digital TV trade in programme*" that gives consumers who purchase analogue TVs this year right to trade them in on digital sets n next year. Sales of analogue TV sets have dropped measurably in most US market segments following general announcements of impending (1998) arrival of first digital TV receivers and concurrent start of commercial digital broadcasting. Buyers of 31-60" Zenith analogue sets will get "full purchase price trade in" against equivalent screen size digital sets offered in 1998 (and after). Or, consumers can apply $100 discount coupon that comes with each new analogue set against price of digital to analogue set-top converter which will also be available in 1998. Competitors to Zenith were not certain this is a good plan. Spokesman for Mitsubishi noted, "*If you are selling the TV sets at or near your manufacturing cost, you really have made no profit when you take them back. Then you have the trouble and expense of getting rid of the analogue sets. We don't have a used product market like the car industry.*"

Home PCs with DVD drives will proliferate and become standard equipment now that software solution to MPEG-2 decompression is available. Zoran, Santa Clara (Ca) firm will begin shipping SoftDVD programme shortly. This is first software-only solution to processing MPEG-2 video data stream and it also has ability to unzip digital video disc CSS (Content Scrambling System) encoding being employed with current DVD releases. However, SoftDVD requires significant PC processing power to function without losing video frames: Intel Pentium MMX chip (such as 266-MHz MMX Pentium II). Demonstration on 200-MHz and 166-MHz equipped

PCs showed slow degradation in real time decompression with progressively more frames lost. Next generation, 300-MHz chips, will provide headroom to allow multitasking.

Consumer Electronics

Line distinguishing video (motion) cameras and still frame (photo) cameras continues to blur with latest new products being shown at annual PC Expo held in New York. Latest trend is to build 3.5" floppy disk into camera allowing users to pop floppy from camera, plug into PC and then review, edit, manipulate or otherwise process individual shots. Sony has pair of Digital Mavica models, each stores up to 40 images on 3.5". Fuji displayed DX-5 equipped with "Smart Media Card" that comes out of camera, goes into (optional) card reader that is in turn connected directly to PC through floppy drive adapter. At top end, Sharp VL-DX10 Digital ViewCam combines video recording functions with 2-Mb flash memory capable of storing from 12 to 48 still shots. Pricing: Mitsubishi DJ-1000 carries low ball price of US$249 with capacity to store up to 112 images at 504x378 pixel resolution. Lowest cost 3.5" floppy equipped model is apparently Sony Mavica (US$595).

Year 2000 problems with home VCRs, camcorders, TV set calendars "*not a problem*" according to report by trade association in USA. "*We have extensively tested (consumer electronic products) now sold or recently sold by major manufacturers and have been unable to locate a single product that is not 'Year 2000 Compliant'*" reads statement. Computer industry, apparently in particular the mainframe computer industry, will not be so fortunate. As many as 5% of all units now in use are believed to be incompatible with millennium roll over on December 31, 1999. Computer software driven by internal clocks built into PCs routinely use last two digits in tightly configured 6 digit code to establish date (month-day-year) as part of operating code. Most VCR times, according to report, are pre-programmed through year 2010 (if manufactured up to 1992) or year 2036 (if manufactured after 1992). Timers in pre-1992 low end models typically ran out only 30 days and "*could care less what the year is*" says summary.

Consumer DVD status. Only one Hollywood studio (Warner) is now distributing DVD software; a handful of others seem ready to announce launch soon (Paramount, Universal - as soon as November) while remainder of film producing/distributing firms are simply waiting for a final decision on "region coding" (Fox, Disney). Noted researcher Paul Kagan forecasts DVD movies will amount to US$13 billion market by 2006. Kagan forecasts 2000 as break through year for DVD, rising to 10.1 million players representing 12% of video households (in USA) by end of that year. DVD software passed 175,000 sales point in 7 city limited market test by Warner in mid-July. DVD release in Europe is even more clouded. Philips will use annual IFA show in Berlin (late August) to unveil pair of European DVD units (US$800-950) but there is no software (DVD movie) product at this time. Competitors to Philips are asking why Philips would release a player that has no legal use. Philips response is vaguely worded statement that PolyGram will support release with range of titles (PolyGram is partially owned by Philips). US movie makers continue to consider European release of movies to be "well down the road" since their USA release is not yet complete (Warner will expand 7 market trial to full USA August 26th).

DVD problems may not end with solution of regional coding issue. Now two start-up firms are pitching "pay-per-play" technology to movie producers as alternate to direct sale of movies on discs. Concept works like this: Video rental houses would distribute movies on disc which are software keyed to allow one play through. Disc must then be returned to rental store for "reprogramming" to allow next "single play for pay." (Alternate plan is for consumer to pay US$4-5 and simply toss disc into trash after single play.) Movie folks love concept of collecting flat fee for each time disc is played with their movie content, and seemingly tamper proof software that prevents replay without payment of new fee. Issue is perfect example of "*technology reinventing itself every 18 months.*" DVD technology, reasonably mature 2 years ago, seemed headed for world-wide release in 1996. Movie folks then decided that before they would release movies (software) for technology, system designers had to create acceptable "regional coding" that would allow movies to continue to be released on a region by region basis. While this issue has delayed introduction of DVD (players and software) for year plus, now as that issue appears close to resolution along comes new concept that would change way DVD software is marketed. It had been originally conceived as a sell through technology (US$24.95 per disc suggested). Of course movie people would rather collect tickets for each viewing and "pay-per-play" suits their mindset on this issue.

Top selling brands and models of DVD players in US: At Good Guys chain of stores, Sony DVP-S7000 (US$999), Toshiba SD3006 (US$649), Panasonic DVD A300 ($749), Toshiba SD 2006 (US$499), and Pioneer DVL-70 combo laserdisc and DVD player (US$999). Chain claims their average customer purchases 5 DVD titles at time of player purchase, while industry believes 11 software titles have been purchased by early adapter player purchasers from point of player purchase forward.

US$4799 - retail. Here is what you get: 31" Gateway (brand) Destination (model) TV/PC combo equipped with Mitsubishi picture tube, Toshiba DVD-ROM drive, Harmon Kardon stereo audio system, 266-MHz Pentium II CPU, 6.4-Gb hard drive plus bundle of software, IR remotes, and DVD sampler discs.

Compaq is responding to PC pricing war by releasing US$995 PC with monitor equipped with Intel 200 MHz Pentium processor, 16-Mb RAM, 2 Gb hard drive and 16x CD-ROM.

-Without Comment-

Rupert Murdoch/News Corp donated US$744,700 to 1996 Republican National Committee election fund and US$75,000 to Democrat National Committee. Murdoch's Republican contribution was second largest single donation received, behind movie studio MCA (US$1,180,000). Democratic incumbent Clinton rewon the US presidency but Republicans retook control of both the US House and the US Senate.

WebTV latest subscription figures (USA): 85,000. Major consumer push by Mitsubishi with their new "Diamondweb" product has been delayed to late August. RCA/Thomson using branding "RCA Network Computer" is targeting early September (Labour Day Weekend) for launch of their web-like TV product.

Lucent (former Bell Labs) and Philips are joining forces to become internationally recognised wire and wireless telephone product business. They expect to do US$2.5 billion the first complete year with 12,400 employees between them dedicated to effort. Philips has been unable to crack US telephone product market, Lucent has done badly in Europe and the two bring natural synergy to each side of "the pond." Jointly, they hope to become a world-wide force as well in Latin America and Asia. Firm is expected to trade under Philips Consumer Communications (PCC) banner.

Sony has identified "crack in distribution system" that has been taking PlayStation game consoles intended for US market into so-called grey markets outside of USA. Primary unlicensed redistribution has been in Latin America where players that sell for US$140 (dealer cost) end up being sold on wholesale market for US$240. Sony was alerted to redistribution system when smaller US distributors began complaining they were unable to get product from master distributors. Sony said the numbers did not add up - they were shipping plenty of product to satisfy US distributor needs, a significant percentage was never getting to distributors and dealers. There was no theft or other illegal trading here - only that Sony US distributors who had signed agreement to limit distribution to their designated marketing regions were selling outside those regions, and in fact to foreign (to USA) locations. Sony is cutting off distributors engaging in this practice from future shipments.

"***Waiter - there is a computer chip in my soup*!**" Princeton University has announced new technology that allows it to build thin-film semiconductor materials from organic materials (not identified). Until now, if you wished to build ICs and other semiconductor parts, you began with an inert substance such as silicone chip. Princeton says they can take organic materials, live or recently live and using laser convert materials to IC chips. There could be an export market here for Kiwi agriculture products.

Financial shakeout occurring in US consumer electronic retail outlets continues to claim participants. Montgomery Ward, at one time a major retailer in USA, is seeking protection of US bankruptcy laws and has announced closing of as many as 100 stores. Consumer electronics retailer Wiz is closing 5 stores in New England and cites downtown in consumer electronic business for decision. Circuit City retail stores found sales slipping 6% during June, Computer City down 6% and levels of Radio Shack down 2%. Just released consumer electronic sales for first six months in USA shows 8.9% decline in overall TV receiver sales. Whether consumers are still nervous over investing in new analogue TV sets in face of impending digital TV is uncertain.

LG Electronics (still Goldstar in NZ) is investing US$289 million in new production facility in Indian state of Utter Pradesh; plans to begin TV set shipments in March and targets 800,000 units annually. At same time, LG announced commitment to fund US$10 billion plant near Beijing (China) over period that ends in 2005.

Thomson Consumer Electronics is converting (USA) toll free "technical assistance help line calls" to US$1.50 per minute "900 calls." Service shop owners are irate over change in policy, citing "*Having to pay these guys for technical assistance on problems created by factory mistakes is ludicrous.*"

Philips has further severed ties with financially troubled Grundig by reducing share holding from 32 to 5%. Philips is obligated to continue making payments to heirs of founder Max Grundig through 2004.

Code-free DVD players offered for sale by Hong Kong Internet firm have in fact been modified. Original promotion said units were "factory original" which caused confusion since no such code-free units were believed to have been manufactured. The brand and model identification turns out to be Panasonic DVD-A100 and DVD-A300 players and Panasonic says that its investigation revealed two jumper wires "*and other circuit board changes*" had been performed on modified units on offer. Panasonic may have saved face in their investigation, but at the same time their claim that internal wiring changes made units "code free" obviously suggests that other designs as well can be easily modified by anyone with appropriate knowledge and a soldering iron. The Internet promoter of the code-free unit seems to no longer have the units for sale.

Cable/Fibre/MDS/Pay TV

MCM Music Television, French competitor to MTV, is gaining ground throughout Asia. MCM typically charges cable operators US$0.10 per cable home per month with a descending scale based upon system size. Recent new affiliation agreements include four Indian cable firms with 1.2 million subscribers, BNT and UTV in

Thailand (170,000 homes) and Japan's DirecTV satellite to home service (November start). Affiliated firm F.TV (Fashion Television) recently concluded an agreement with Hong Kong's Wharf Cable.

Sky Network (NZ) decision to add "Orange Channel" to present single channel Satellite service carried on Optus B1 is expected daily. Sky uses one half transponder (12.545 GHz, VT) and can with some reduction in power add a second analogue service channel in the same transponder. During July there were several "tests" of the transponder, with two video carriers, to allow on ground measurement of signal reduction for the pre-existing Sport channel service. Reason for Orange addition? Sky owns rights to more Rugby than it can properly screen on only the Sport channel. This means a not insignificant amount of their sport programming, including Super League Rugby, is shunted over to Orange. Satellite subscribers, living beyond the reach of Sky terrestrial transmitters and therefore outside of Orange coverage, have been especially vocal complaining that they believed for NZ$650 they were to receive all of the sporting services from Sky. Sky first told complainers they were mistaken in their belief, and then began to hear from politicians who raised issues Sky did not wish to hear. In end, decision to add Orange (at no increase in satellite subscriber cost but increases for cable systems adding Orange to Sport) was totally technical - could it be done without reducing signal reliability for the more important Sport channel service? Sky's decision to use 65 and 72cm size dishes was originally based upon the anticipated digital bouquet signal levels to be available in 1998; combining Orange and Sport in a single transponder, each at reduced power from a full transponder, will result in an on ground signal level that should be slightly below the predicted digital levels. Assuming the addition of Orange goes ahead as now scheduled, the next step will be to advise non-technical consumers how to tune in the new channel using receiver controls they have been instructed not to touch! Installers report the growth of Sky's satellite programme has slowed dramatically since June and is estimated to be well under 500 new installations per week nation-wide during July.

Pay TV advertising, banned by regulation prior to July 1st, is now appearing on a variety of Australian cable and Galaxy channels. A "Multi Channel Network" combining the subscribers to Foxtel, Galaxy, plus regional operators Austar and East Coast allows advertisers to appear throughout Australia at the same time. Initial rate are $200-300 for a 30 second spot. The combined penetration of Galaxy, Foxtel and Optus in the Sydney, Melbourne and Brisbane markets is between 10 and 13%. Audience measurement systems is the next step to determine the size of audience for individual channels and programmes. The first commercial to air after the ban expired was in an MTV Network programme carried on Optus Vision on behalf of Durex condoms.

US cable TV subscriber rates have climbed 7.7% in year ending June 30, against inflation rate increase of 2.2%. Rates are pegged by federal statute to complicated formula that includes recognition of national inflation changes. Cable viewing by homes has also increased significantly in same year; up 15.4% during May "sweeps" period over one year ago.

European Community officials are studying ways to deal with rapid growth of cable television networks within EC and to find balance between the importation of out of market programming seemingly demanded by viewers and needs of local broadcasters to reach all homes inside of nominal coverage area. In US and Canada, similar situation is dealt with through "must carry" regulations which require cable systems to carry local service signals in preference to distant source signals, at least to point of assuring all local services are cable delivered. Europeans are finding almost identical problem and believe as a minimum cable systems should be required to carry local, non-commercial, public television services. Increasingly, cable system access is being described as a "bottleneck" for broadcasters who must fight system by system battle to gain guaranteed system carriage.

How much is "free TV" worth to cable companies? In USA, cable firms are required to contribute sum of money each year to copyright tribunal which in turn redistributes fees collected to copyright owners. Plan covers cable's use of local (read available to cable subscribers without cable) programming and offsets any individual claims TV broadcasters might attempt to make on individual cable operators. Answer to question: In 1996, cable firms took in US$34 billion and paid out for copyright fees US$170 million; 0.05% of total income spent for copyright. Australia treats off air free to air signals without copyright reimbursement; New Zealand leaves TV broadcasters and cable in free market tussle which requires cable to agree to make copyright payments to broadcasters after "negotiation." Typical New Zealand copyright fees are in range of NZ$0.05 to .10 per cable home per month. The US fees (1/2 of one percent) are in exchange for use of all local TV signals, the New Zealand fees are per channel.

Terrestrial Broadcasting

North Shore (Auckland) UHF broadcaster Family Television Network (FTN) has acquired control of Christchurch UHF independent CRY TV. The Christchurch station had changed original format from music TV videos to mixture of off-satellite programming including plans to include TVSN (shopping network) feeds. FTN has UHF translator station under construction for Whangaparoa Peninsula region; signal will slide into many shoreline regions of Auckland proper from this new location as well. FTN is operated by a non-commercial Christian group.